

CLAIMS

What is claimed is:

- 1 1. A method for translating protocol decode objects, comprising:
 - 2 (a) receiving a plurality of frames;
 - 3 (b) decoding the frames in order to generate protocol decode objects each with a
4 numerical identifier associated therewith;
 - 5 (c) translating each numerical identifier to a textual identifier; and
 - 6 (d) displaying each textual identifier associated with the protocol decode objects
7 for facilitating the use of the protocol decode objects during network
8 analysis.
- 1 2. The method as recited in claim 1, and further comprising receiving a list of
2 management information bases (MIBs) from a user.
- 1 3. The method as recited in claim 2, wherein the MIBs include a hierarchical
2 structure.
- 1 4. The method as recited in claim 2, and further comprising compiling the list
2 of MIBs in order to generate a map.
- 1 5. The method as recited in claim 4, and further comprising loading a decoder
2 with the map.
- 1 6. The method as recited in claim 5, wherein the numerical identifier is
2 translated to the textual identifier utilizing the map.

- 1 7. The method as recited in claim 6, wherein the map includes a look-up table.
- 1 8. The method as recited in claim 6, wherein the map includes a list of the
2 numerical identifiers each with the associated textual identifier.
3 .
- 1 9. The method as recited in claim 1, wherein the textual identifiers include
2 alphanumeric text descriptive of the protocol decode objects.
- 1 10. A computer program product for translating protocol decode objects,
2 comprising:
3 (a) computer code for receiving a plurality of frames;
4 (b) computer code for decoding the frames in order to generate protocol decode
5 objects each with a numerical identifier associated therewith;
6 (c) computer code for translating each numerical identifier to a textual identifier;
7 and
8 (d) computer code for displaying each textual identifier associated with the
9 protocol decode objects for facilitating the use of the protocol decode objects
10 during network analysis.
- 1 11. The computer program product as recited in claim 10, and further comprising
2 computer code for receiving a list of management information bases (MIBs)
3 from a user.
- 1 12. The computer program product as recited in claim 11, wherein the MIBs
2 include a hierarchical structure.
- 1 13. The computer program product as recited in claim 11, and further comprising
2 computer code for compiling the list of MIBs in order to generate a map.
- 1 14. The computer program product as recited in claim 13, and further comprising
2 computer code for loading a decoder with the map.

1 15. The computer program product as recited in claim 14, wherein the numerical
2 identifier is translated to the textual identifier utilizing the map.

1 16. The computer program product as recited in claim 15, wherein the map
2 includes a look-up table.

1 17. The computer program product as recited in claim 15, wherein the map
2 includes a list of the numerical identifiers each with the associated textual
3 identifier.

4 .

1 18. The computer program product as recited in claim 10, wherein the textual
2 identifiers include alphanumeric text descriptive of the protocol decode
3 objects.

1 19. A system for translating protocol decode objects, comprising:
2 (a) logic for receiving a plurality of frames;
3 (b) logic for decoding the frames in order to generate protocol decode objects
4 each with a numerical identifier associated therewith;
5 (c) logic for translating each numerical identifier to a textual identifier; and
6 (d) logic for displaying each textual identifier associated with the protocol
7 decode objects for facilitating the use of the protocol decode objects during
8 network analysis.

1 20. A system for translating protocol decode objects, comprising:
2 (a) means for receiving a plurality of frames;
3 (b) means for decoding the frames in order to generate protocol decode objects
4 each with a numerical identifier associated therewith;
5 (c) means for translating each numerical identifier to a textual identifier; and

6 (d) means for displaying each textual identifier associated with the protocol
7 decode objects for facilitating the use of the protocol decode objects during
8 network analysis.

1 21. A method for translating protocol decode objects, comprising:
2 (a) receiving a list of management information bases (MIBs) from a user;
3 (b) compiling the list of MIBs in order to generate a map;
4 (c) loading a decoder with the map; and
5 (d) decoding a plurality of frames utilizing the map.

1 22. A computer program product for translating protocol decode objects,
2 comprising:
3 (a) computer code for receiving a list of management information bases (MIBs)
4 from a user;
5 (b) computer code for compiling the list of MIBs in order to generate a map;
6 (c) computer code for loading a decoder with the map; and
7 (d) computer code for decoding a plurality of frames utilizing the map.

1 23. A data structure stored in memory for translating protocol decode objects,
2 comprising:
3 (a) a map object for correlating numerical identifiers of protocol decode objects
4 with textual identifiers;
5 (b) wherein the textual identifiers associated with the protocol decode objects are
6 adapted for facilitating the use of the protocol decode objects during network
7 analysis.

1 24. A method for translating protocol decode objects, comprising:
2 (a) receiving a list of management information bases (MIBs) from a user;
3 (b) compiling the list of MIBs in order to generate a map;
4 (c) loading a decoder with the map;
5 (d) decoding a frame including:

- 6 (i) receiving a frame,
- 7 (ii) generating at least one SNMP (ASN.1) protocol decode object with a
- 8 numerical identifier associated therewith during the decoding, and
- 9 (iii) translating the numerical identifier to a textual identifier utilizing the
- 10 map; and
- 11 (e) displaying the textual identifier associated with the protocol decode object
- 12 for facilitating the use of the protocol decode object during network analysis;
- 13 (f) determining whether another frame exists; and
- 14 (g) repeating (d) – (f) based on whether it is determined that another frame
- 15 exists.
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